BACKGROUND OF THE INVENTION

1. Field of the Invention

The VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT relates to a digitized information base system installed in the compartment of a vehicle. This invention relates commonly to a communication system installed in a vehicle to communicate intentions to drivers of other vehicles in the rear, or at an angle from the car in front. This invention relates to a interactive system installed in a vehicle in which communicates information concerning situations, and conditions the drivers of other vehicles will encounter. The invention relates to a communication system installed in a vehicle to communicate various other types of information to drivers

2. Discussion of the Related Art

In 1995 there was an estimated total 2,287,000 motor vehicle accidents; in 1996 there was an estimated total of 2,550,000 motor vehicle accidents; and in 1997, there was an estimated total of 3,910,000 rear end motor vehicle accidents. In 1998 there was an estimated total of 3,700,000; in 1999 there was an estimated total of 3,550,000; and in 2000 there was an estimated total of 3,990,000 rear end accidents. (Source: U.S. Department of Transportation Accident facts.)

This device provides broader awareness during operation of motor vehicles. Current conventional rear light signals help, but are not effective, because the average driver has become accustomed, and therefore attention span is relaxed in routine everyday driving. This new technology enhances awareness, and perception, which is needed in reducing angle and rear end collision annual statistics. Interviews with drivers involved in rear end collisions all noted that the reason the collisions occurred, was due to driving too close, not paying attention, or simply didn't notice until too late that the driver in front was slowing or stopping.

Various methods invented for vehicle to vehicle communicating devices have been submitted. Commonly, these devices involved the signaling of pre-selected messages from one vehicle to another by operation of a switch to select the message to be communicated. These methods do not interface with the standard vehicle signaling devices. Communicating devices also include permanent signals with messages that are displayed on the vehicle. Proposed methods include messages that are pre-programmable. System problems occur when these unchanging signals are displayed, and could cause possible conflicts in

messages that could represent misinterpret signals, opposite of what user intends to transmit. Confusing messages sent by the device to the drivers of other vehicles when the automatic signals are displayed, pertaining to current conventional signal lights. For example, the driver of a vehicle may be displaying a fixed signal such as merging left lane, when an emergency braking situation occurs. Other methods include using the brakes to transmit information, this is clearly a danger to other drivers in vehicles because brake lights are intended to inform vehicles of slowing and/or stopping, and should remain for just that purpose. In such an instance a driver presses the break pedal and does not have time to remove the current displayed message. These types of devices clearly have real potential to cause accidents.

Another device proposed is a remote control unit pre-programmable by user. This remote device has a table of pre-selected and programmed messages, a rotary switch to scroll through the messages, and a switch to select the desired messages. The rotary device can be pre-programmed by a program installed on a hand held computer with a cable attached from the hand held computer to the remote unit.

The rotary selector switch causes the memory unit to scroll through the selections in the table. As the rotary selector switch points to a message in the table the message is displayed on the driver interface panel. Rotating the rotary selector switch in either direction causes the pattern generating module in the remote control unit to sequence up or down through the pre-set display patterns. To choose the flashing pattern, the rotary selector switch is pushed inwardly, or clicked. Further the remote causes message to scroll if the message is longer than the width of the display unit. And finally, the device has a radio frequency signal encoder and wherein the communication module includes a radio frequency transmitter to transmit an encoded radio frequency signal to the display unit, wherein the communication module to receive the identification code from the remote control unit comprises a radio frequency signal receiver and a radio frequency signal decoder.

In current driving situations, a driver must make clear his or her intentions in a matter of spit seconds. In regards to the rotary device, one must first place the right hand on the rotary selector switch, and turn to sequence up or down through the pre-set display patterns, and search for the desired messages in either direction while still maintaining control of the vehicle. Once message has been located, driver must then push the rotary sector switch inwardly, or clicked, which causes the information concerning the pattern to be sent to the RF sending unit. As stipulated, drivers of vehicles have only spit moments to set forth their

intentions to drivers in the rear. To avoid accidents, one must have his/her attention focused on the surrounding traffic, and should not be presented with having to look back and forth from, and to traffic numerous times at a interface panel which only provides one option to be viewed at a time which requires more attention, and thus, placing occupants in possible jeopardy of being involved in a accident. Radio frequency signal represent new technology, but is not a reliable source in this day and age when there are millions of countless imprints of microwave signals bouncing off satellites, and antennas. Radio Frequencies have a tendency to fade, or phase out. Access by users to pre-program what messages are displayed, pose a critical problem, because obscenities can be programmed onto display which could possibly cause road rage, or confusing information by unskilled programmers. Pre-programmed information should be implemented by skilled professionals who have researched, evaluated, and have analyzed all possible driving scenarios which apply to driving situations, Preferably, skilled professionals from a vehicle manufacturer whose main responsibility has already been instituted in providing safety to occupants in their vehicles.

The previous Automotive Digital Rear Window Display Unit system disposed in a vehicle, consists of a solid state microelectronics infrastructure computer unit which is installed in a vehicle, wherein the Automotive Digital Rear Window Display Unit includes a power button which turns the ADRWD power unit on, a light intensity button which provides up to three levels of visual intensity, and depth, a size control button which provides four different size effects, a set of selection function buttons which user has the ability to select the type of display one desires, depending on the driving situation one is surrounded by, a invert rear display button, which changes the background red and the foreground black, or vise versa. The ADRWD Unit has a set of preprogrammed memory program insert chips which translate preprogrammed digital information to the rear display, a activated program chip indicator, which allows user to distinguished which chip is currently in use, a set of program chip selection buttons which selects the type of driving program user wishes activated, a digital mode selection indicator which provides a list of what selections are available on the activated program insert chip, a activated selection highlight indicator function, two standard turning signal buttons which displays an arrow if turning left, or right. A blinking hazard/beacon light button which when pressed it sends a low level electrical current to the display, a stop function button, which stops all commands. The ADRWD interfaces with Mfg.'s

automotive microelectronic main computer having a transmittal electronic circuitry signal component processor from which current conventional lighting signals on automobiles are allocated certain degrees of singular sets of precedence over the ADRWD Unit commands.

The ADRWD-Unit technology currently available represents the fastest known reliable source of communicating with drivers of other vehicles at this present time. Pressing one button wherein action engages and disengages commands controls selections.

The existing invention proposes substantially more selections than the earlier ADRWD-Unit with one additional exception that this unit is voice activated, which will allow driver to make selections without having to take one's eyes off the road at a even faster and accurate rate. Both speech recognition systems and natural language systems share a common element in that they both perform better with a larger number of reference patterns (e.g., phonological information or speech templates for voice recognition systems, word and phrase patterns for natural language systems). For natural language systems, the larger the vocabulary of the system, the more flexible and user-friendly the system becomes. For example, it is easier for a person to communicate a message to another person with a vocabulary of one thousand preprogrammed words than three hundred words. Similarly, it is easier to communicate with a computer with a larger vocabulary of commonly understood terms. Furthermore, a larger vocabulary is more likely to accommodate the varied speaking styles and idiosyncrasies of different people. This larger vocabulary also help speech-recognition systems, since a larger vocabulary tends to allow a speaker to construct longer phrases, and the performance of many conventional speech-recognition systems in general tends to improve when multiple words are spoken as compared to short or single words.

The previous existing systems, as well as proposed systems, do not have the capability to provide reliability, accuracy, and increased speed where seconds count.

Henceforth, what is needed is a digitized voice activated communication system that increases the amount of information with accuracy, and spit second speed with pre-programmed digital language memory chips programmed by individuals skilled in the art of highway situations, and scenarios, and most importunately, uncomplicated selections with ample simplicity.

SUMMARY OF THE INVENTION

The VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT is a device, which is designed to prevent vehicle rear end, and angle collisions between automobiles. The display unit is installed in or on the windshield of the vehicle. (Properties: voice activated micro electronic computerized control unit, and light emitting display). The Voice Activated-VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT is a digitized view display operated by microelectronic program language memory chips, which are operated from a computerized control pad within the compartment (car). The purpose of the display is to communicate to vehicles in the rear, the intentions of the driver in front within spit seconds of decision, and selection. The display projects awareness, and alertness to traffic in the rear. The VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT provides extraordinary advantages. For instance, if a driver was in need of medical help, and unable to drive, in most instances the occupant would have no way to get immediate help from other drivers passing by, unless they tried to flag, stop or use a cell phone. With the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT, a near incapacitated driver could communicate the problem, or situation to other drivers, or law enforcement with the voice command emergency program. The VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT-Control Pad enables user to select text that identifies with the driving situation. It notifies vehicles in the rear, if the driver wishes to switch lanes, merge left, or right traffic lanes, type of passengers on board, speed limit notification to drivers in the rear approaching too fast, driving too close, engine or car trouble, icy road conditions, etc., e.g.. The purpose of the current taillight, and conventional turning signal is to communicate to the driver in the rear the intentions of the driver in front of him/her. Unfortunately, they'll not reducing rear end, and angle collisions. The VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT enhances perception, and observance. Each year the rates of Rear End, and Angle collision fatalities rise.

The design, and concept of the Voice Activated-Automotive Display-Unit is the essential aspect of the device, and is a well-suited new technology for the 21st Century automotive industry.

BRIEF DESCRIPTION OF THE DRAWINGS

The device facial traits believed nature of the invention are asserted in the attached claims. The invention itself however as well a preferred method of use, and further objects and improvements therefore, will best be comprehend by allusion to the following, specified description of figurative embodiments when read in association with the accompanying drawings, wherein:

FIG. 1 represents a vehicle with a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT display in parallelism with the current invention arranged inside the rear window of the vehicle. The display is shown portraying the message "TURNING LEFT. "

FIG. 2 represent a vehicle with a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT display in parallelism with the current invention arranged inside the rear window of the vehicle. The display is shown portraying the message "TAXI IN SERVICE."

FIG. 3 represent a vehicle with a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT display in parallelism with the current invention arranged inside the rear window of the vehicle. The display is shown portraying the message "MERGING TRAFFIC."

FIG. 4 show a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT control module system consisting of a solid-state microelectronics infrastructure computer unit in **systems check mode.**

FIG. 5 show a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT control module system consisting of a solid-state microelectronics infrastructure computer unit in **power off mode.**

FIG. 6 show a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT control module system consisting of a solid-state microelectronics infrastructure computer unit in **voice on mode, current running selection indicator, current running program indicator.**

FIG. 7 show a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT control module system consisting of a solid-state microelectronics infrastructure computer unit in **voice on mode, current running selection indicator, current running program indicator, activated program console listing.**

FIG. 8 show a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT control module system consisting of a solid-state microelectronics infrastructure computer unit in **voice on mode,**

current running selection indicator, current running program indicator, activated program console listing, generic option selection listing.

FIG. 9 show a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT control module system consisting of a solid-state microelectronics infrastructure computer unit in **voice on mode, current running selection indicator, current running program indicator, generic option selection listing.**

FIG. 10 show a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT control module system consisting of a solid-state microelectronics infrastructure computer unit in which displays a **program error message.**

FIG. 11depict how the VA-AWDU display detached from the embodiment to illustrate how the VA-AWDU screen is shaped.

FIG. 12depict location of the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT Control Pad within the compartment of the automobile installed in the steering wheel in systems check mode.

FIG. 13 depict location of the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT Control Pad within the compartment of the automobile installed in the steering wheel in power off mode.

FIG. 14show a block diagram of the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT.

DETAILED DESCRIPTION

FIG. 1 represent a vehicle with an VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT display **80** in parallelism with the current invention arranged inside the rear window **75** of the vehicle **002**. The display is shown portraying the message "TURNING LEFT" **70**. Here the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT display indicates to drivers in the rear of the driver's intent to turn left.

FIG. 2 represent a vehicle with a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT display **80** in parallelism with the current invention arranged inside the rear window **75** of the vehicle **002**. The display is shown portraying the message "TAXI IN SERVICE" **70**. (As symbolized in the illustration, extremely useful for limo services, or airport taxi cabs).

FIG. 3 represent a vehicle with a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT display **80** in parallelism with the current invention arranged inside the rear window **75** of the vehicle **002**. The display is shown portraying the message "MERGING TRAFFIC!" **70**.

FIG. 4 comprises a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT system **001** consisting of a solid state microelectronics infrastructure computer unit in **systems check mode** which is installed in a vehicle, wherein the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT module displays a power button **11**, voice microphone **1**, voice on indicator **2**, voice off indicator **2-a**, program signals **3**, selection numbered indicator **4**, inactivated selection **5**, activated selection indicator **6**, generic option console **6-a**, digital selection buttons for generic selections **6-b**, generic selection button initiator **7**, program indicator console **7-a**, program (list all programs)button **8**, activated program selection **8-a**, current running program indicator **8-b**, current running selection indicator **9**, systems check button **10**.

FIG. 5 comprises a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT system **001** consisting of a solid state microelectronics infrastructure computer unit in **power off mode** which is installed in a vehicle, wherein the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT module displays a voice microphone **1**, generic selection button initiator **7**, program (list all programs) button **8**, systems check button **10**, power button **11**.

FIG. 6 comprises a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT system **001** consisting of a solid state microelectronics infrastructure computer unit **power on mode** which is installed in a vehicle, wherein the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT module displays a voice microphone **1**, voice on indicator **2**, voice off indicator **2-a**, generic selection button initiator **7**, program (list all programs) button **8**, current running program indicator **8-b**, current running selection indicator **9**, systems check button **10**, power button **11**.

FIG. 7 comprises a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT system **001** consisting of a solid state microelectronics infrastructure computer unit where list of programs are

activated by the program listing button **8**, wherein the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT module displays a voice microphone **1**, voice on indicator **2**, voice off indicator **2-a**, generic selection button initiator **7**, program indicator console **7-a**, program (list all programs) button **8**, activated program selection **8-a**, current running program indicator **8-b**, current running selection indicator **9**, systems check button **10**, power button **11**.

FIG. 8 comprises a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT system **001** consisting of a solid state microelectronics infrastructure computer unit installed in a vehicle where a listing of generic selections are activated by the digital selection list button **7**, wherein the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT module displays a power button **11**, voice microphone **1**, voice on indicator **2**, voice off indicator **2-a**, selection numbered indicator **4**, inactivated selection **5**, generic option console **6-a**, digital selection buttons for generic selections **6-b,** generic selection button initiator **7**, program indicator console **7-a**, program (list all programs)button **8**, activated program selection **8-a**, current running program indicator **8-b**, current running selection indicator **9**, systems check button **10**.

FIG. 9 comprises a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT system **001** consisting of a solid state microelectronics infrastructure computer unit installed in a vehicle where a listing of generic selections are activated by the digital selection list button **7**, wherein the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT module displays a power button **11**, voice microphone **1**, voice on indicator **2**, voice off indicator **2-a**, selection numbered indicator **4**, inactivated selection **5**, activated selection **6,** generic selection option console **6-a**, digital selection buttons for generic selections **6-b,** generic selection button initiator **7**, program (list all programs) button **8,** current running program indicator **8-b**, current running selection indicator **9**, systems check button **10**.

FIG. 10 comprises a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT system **001** consisting of a solid state microelectronics infrastructure computer unit installed in a vehicle, wherein the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT module displays one out of multiple preprogrammed warning signals **3.**

FIG. 11 show a VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT display from various angles; front **90a**, front right **90b**, bottom right **90c**, top right **90d**, top left **90e**.

FIG. 12 show the location of the Voice Activated-Automotive Digital Unit control module **39** in systems check mode (see fig. 4) within the compartment of the automobile consisting of two logical options. One option is to install it into the dashboard. The most preferable option is to install it directly into the steering wheel **36**. This option provides maximum performance when voice activated commands are selected. Note: The illustration does not represent the actual size of neither, the steering wheel **36**, or VA-AWDU Control Pad **39**. The actual size would be similar to standard steering wheel specifications now in circulation for specified automobile models.

FIG. 13 show the location of the Voice Activated-Automotive Digital Unit control module **38** in **power off mode** (see fig. 5) on the steering wheel **36** within the compartment of the automobile consisting of two logical options. Note: The illustration does not represent the actual size of neither, the steering wheel **36**, or VA-AWDU-Unit Control Pad **38**. The actual size would be similar to standard steering wheel specifications now in circulation for specified automobile models. Further note on FIG. 13 that the VOICE ACTIVATED-AUTOMOTIVE WINDOW DISPLAY UNIT computer module does not interfere with the airbag **37**, or maneuverability of the steering wheel **36**, but does provide convenience, and easy accessibility in selecting voice activated commands.

FIG. 14 is a block diagram of the Automotive Window Display Unit **2001** whereas module interfaces with Mfg.'s vehicle microelectronic main computer **2002** having the capability to transmit, and interface by electronic circuitry signal components to the digital light emitting array display panel **2003.**